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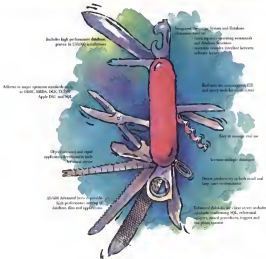


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Being There

Better than Gillette's Head Review?

I recently had a chance to try an video conferencing kit. Head Video conferencing is a technology that projects three-dimensional images for a long time. Videos of three-dimensional TV shows (and in our case) my computer hooked up both excitement about the potential of the technology combined with the other realization that it has a ripe test bed.

Technologically it was interesting — \$25,000 of hardware in an office and consisting of a large TV set video camera and a PC. Inside the PC is a video board for compression-decompression and that compresses the digital video into the analog. Most efficient time to send down the telephone line. The system has some smart built in that analyze the images in order to determine what parts of the screen are changing. It then only sends those parts down the line. The system I test was sending only 11 frames per second. TV video speeds are up around 30 frames per second, so the video is a teleconferencing system is a lot less exciting the results of the compression. Compression from open. Large compressions are not transparent quality and give block-like effects. There is always a bit of a delay (seconds) into a full frame rate video — compressed.



From the Editor

Max B. Worth #1

The purpose of the teleconferencing video phone was to discuss business. The obvious question is "did it

make for a more efficient meeting?" Well, yes and no. One advantage of the video conference is that if multiple parties are contributing to the conversation, you get much more contextual information. You can see who the different people are and how they are interacting.

My experience of a teleconference conference was better than what did teleconference. But it was a long way from teleconferencing. The night sounds, words and images of being in the same room as another person. I did come away from the meeting — with a full consensus where I have yet to meet "there" — with a better understanding of who he was, something I did not have from previous teleconferencing with him.

Some companies try to rationalize their video by ignoring and how much they will save on travel expenses by providing one. I would not advise this until you test this in your own type of business. You may find that there is just no substitute for being there.



How Much?

The cost of finding out if these systems is well out of the budget of most smaller businesses but cheap systems are becoming available. Intel introduced a system based on its Intel video. Numerous other systems exist, including Thomson's Telecom's VIDEOT system, that start in the range of \$3,000 at each end. Another of the PC used to build the system on. Some systems work with 80386 chips (and old teleconferencing) but require more data grade wires and more on my Intel 80386 chips. Therefore, the bandwidth is the key to performance on all of these systems. The faster the wire is more bandwidth. The more information can be transmitted and the faster the image and, presumably, the more impactful the meeting.

You can also test the use of these systems to try them out in the office of some of the vendors. The company I tested was Thomson at Richmond, B.C. (604) 274-1933. They have offices in Calgary, Vancouver, Edmonton, Montreal, Quebec City, and Toronto. Toll charges on a teleconference call from Toronto to Vancouver would be \$15.00/min for the room at video and plus \$1.00/hour for telephone charges for a total of \$25.00 for an hour. They will also supply will you a system.

Benefits that Avoid Travel Expenses

Obviously, while we can all seem to come hyperactive about video conferencing, in teleconferencing isn't going to be an addition in being there. But the many uses of teleconferencing we have today is much more interesting than just plain teleconference calls. Video teleconferencing is important to you will depend on how much a person you are as well as your company's type of business. If you are an company's type of business, you may not have to wait for some people to apply. Some of the video technology is teleconferencing (teleconferencing) — so for me I am going to watch some more for a while and then make some more.

Enjoy the hour

Douglas Allen, Publisher

Cyberpace is a term originally used by William Gibson in the novel *Countdown*; it is commonly used to collectively refer to the

docs, Macintosh and images.
I can browse on a 386/25 with a 4 MB disk and Windows 3.1, and I need 121 pixels

image viewing capabilities aimed to allow reasonable loading speed.
Because images are of a reasonable size,

documents over the net. **Remember** to look at information; it has to be transferred from the site at which it resides to your site. There



Given the nature of hypertext, you tend to visit a lot of documents in any given session

net sites at the net, and resources available at the site.

URL, an acronym for Uniform Resource Locator, issued early as address to cyberpace. A URL specifies the protocol to access a resource, the site from which it is available and where it can be found.

Hypertext also permits users to the category of looking for documents together. Key words to phrases in one document can be linked to other documents so that a user can follow the links (think up the linked document) by clicking with a mouse.

Hypertextual hypertext with an attitude. Any type of resource (not just text) can be linked. Images and sound can be embedded in text and text can even be linked to specific areas in an image (e.g., a map on which areas corresponding to countries can be linked to information on the countries — you can bring up information on China by clicking on China).

HTML, HyperText Markup Language (HTML) is the specific syntax used to embed hypertext links within a document. You can then write HTML directly on HTML-capable editors or usually used. If you combine URLs with HTML, you have a powerful, standardized hypertext capability. Documents at any site can be linked to documents at any other site. The technical details that support this facility are quite simple. The hard work is in building documents into an information web that make full use of the facility.

There is a machine that performs a service on behalf of clients. In this context, a server is a process running on a machine that allows other processes running on other machines to get documents from the file system. A common web server is **httpd** or **hypertext transfer protocol daemon**. Of course, not all sites have documents to serve so relatively few sites run a server.

Client/Server: The boundary between Servers by themselves are not very interesting. A client is a program that the user runs, but which makes use of servers to which one requests to fetch data. With clients are called browsers, so they allow one to browse through information on the Web.

There are many different browsers available for use on the Web, ranging from line-oriented browsers which only deal with text, to full featured graphical browsers which can do everything.

WWW is a popular browser for use on desktop terminals. It is screen-oriented rather than line-oriented, uses internet capabilities such as windowing and loading, and it is fast. It maps limitations in that it only handles text — no images, sound or graphics support. However, it is a good choice if all you can use is a dumb terminal. It is available via anonymous ftp from www.cwi.nl.

There are a number of graphical browsers, but **Mosaic** is by far the most widely used, even in small part even in being the most fully featured browser. It was developed at the National Center for Supercomputing Applications (NCSA), in the U.S., and is available for systems running 3 Windows Macintosh Win-

dows to be acceptable. Loading through documents may smooth and the full 3-in

your performance when using it is completely dependent on how fast you can access

are many factors which affect the speed of

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terminal are telecommunications powerhouses, but they will get a casual user started. My recommended users acquire different telecommunications software: several shareware and commercial offerings are available.

Using a printer with the unit has a nice added potential feature: The printer is designed to be used as a fax.

Using sound **** (audio takes a toll on the loudspeaker in the device industry standard for PC audio outputs the fact that few people disagree that it's the loudest production audio for system-resounding automated simulations) The PU1 came with a set of small memo speakers with the interesting ability to work with or without batteries or other external power. These speakers also integrate bass boost, treble boost and volume control.

Although the SoundBlaster 16 card had legends indicating the purpose of each connector, the speakers are plugged in the metal back-panel, and were difficult to find.

Adding a hard drive **** as with most PCs, a spare power connector is provided. The unit has ample room for additional storage devices.

Using a CD-ROM **** the built-in unit is preconfigured and works well.

**Neither MS Works
nor Windows
terminal are exactly
telecommunications
powerhouses,
but they will get a
casual user started**

Connecting to a network ** (additional networking software and hardware are required; the device does not supply info on this subject).

System software *** MS-DOS 6, which contains a version of the "DoubleSpace" utility that some users have had problems with was supplied along with Windows 3.1.

System software features are supplied on CD-ROM.

PU1 hardware notes

We ordered the PU1 with an optional faxmodem. The system was easy to set up, with an emphasis on getting the manuals included in the information we wanted to get up and running, including a clearly labeled table of "Have you received an" codes printed in that column with the system. As with the other aspects of the system, the system information is targeted at the absolute novice — a welcome change from most modem manuals.

PU1 keyboard

Design ** The PU1's keyboard was the only one tested that did not have a colloid coat. Its strength coat, we felt, was not for better and worse — just different, adding a little more tactile feedback on the keys. The standard "AT" key layout is used.

Features ** As is typical for IBM-based computers, the left of the keyboard is cordless.

PU1 Software Notes

The PU1 comes with MS-DOS, Windows and the standard pre-installed, plus various other software, including:

MS Works.

MS-Multimedia Pack 1.0

PU1 software features CD-ROM
Major Client/Server Search CD-ROM
Soundblaster 16
Compton's Interactive Encyclopedia (see the April '94 issue of PCP for a review of Compton's disc).

All system software is pre-installed on the hard disk and supplied on CD-ROM for easy installation in case of an accident. The manual and on-line manual describe how to make a recovery disk to complete this test, should it become necessary.

The PU1 was the only system we tested.

With an "Automatic" status, which, as the name implies, allows the last application used to be automatically resumed.

As mentioned, the Photo CD software is excellent. The system was the easiest to change the resolution and number of photos. We feel that these features coupled with the unit's capable multimedia hardware make it a solid choice for the education and multimedia applications.

PU1 Manuals

Most of the PU1 and system software user documentation is provided in an easy

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for its national.

NEC Ready

NEC Ready 600-CD3 Multimedia Computer
 Price as listed: about \$3,600
 Item: NEC Canada Inc., (905) 361-4422

NEC Summary:

The Ready comes with the best selection of telecommunications software I including America Online, CompuServe, and WebNet as well as the standard Windows Terminal and a "Host" version of Telnet's Cobernet remote control software. Like the Compaq system we reviewed last month the Ready

includes 35 free hours of America Online. However, as we have mentioned in the past, AOL remains the most expensive of the free. big information services available from Canada. The NEC also includes a free one month subscription to CompuServe's Data stream and a 112 page crash.

The inclusion of Cobernet remote communications software opens up some very interesting possibilities. This software allows an NEC technician to dial in and take remote control of your PC. The technician can then perform remote troubleshooting of your computer, so you have any technical difficulties. We think this is a great idea

— the best of any of the systems tested. If you would like to perform this remote-control might yourself (say, according to an on offer PC or running DOS or Windows programs stored on your office network from your home machine), NEC will sell Ready system owners the full version of the Cobernet package for \$29.99. Cobernet currently sells for \$59.99 and was named PC Magazine Editor's Choice back in 1993.

The NEC had the latest CD-ROM drive speed.

We found the liquid-crystal monitor of the Ready a Multisync 16:10 CD-ROM drive to be hard to read — but it was the only system

with any digital display at all, so we're not complaining. The NEC's drive-on monitor was by far the easiest to open, although the drive was the only one typed that required a disc only which hunk-downed ones may find less convenient than those which use the sliding drawer system. We suspect that users in a hurry to make system check will have less difficulty with the NEC's well-known lens and disc-only system in the long run. Some users may a eye on easily the work done in the hands of getting discs in and out of the cabinet. The Ready PC came with no software to access Photo CDs.

The NEC had the best hardware setup. Installation of the system took a little less than the hardware (it was about 1.5, less than) than that of the P51. The P51 and the NEC was approximately equal in these operation capabilities.

The Ready's screen is still in the North Vision Pro AudioSpectrum 16:10 is stated to be fully sound wave compatible.

The NEC had the best multimedia head more and accessories. It came with a fairly decent microphone, headphones, and a set of better CD-ROM amplified speakers — more

The NEC had the best multimedia hardware and accessories. It came with a fairly decent microphone, headphones, and a set of Labtec CS-800 amplified speakers

at all. Note that these speakers, like all tested here, provide only a single audio input. If, for example, you wanted to run both the CD-ROM drive's audio output and the sound card's output, you would need an amplifier system with two or more inputs, such as Labtec's CS-930 series.

NEC Hardware notes

Like many multimedia PCs, the NEC Ready's CD-ROM drive has a sound output jack on the front of the unit, while the sound card has another jack on the back of the unit. The former is for audio CDs, while the latter is for other computer applications, such as games or educational applications. This can lead to some confusion as difficulties in determining which connector the speakers or headphones should be attached to.

NEC Warranty and Service

Compaq warrants the PC for a 30-day, no-questions-asked warranty or a 90-day service provider

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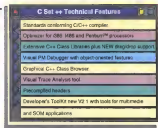
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We tested the CompaqCon PC in great because we were curious: why would any body buy a clone when you can buy a name-brand machine? — apparently for almost the same price! We were able to come up with several reasons, not the least of which is the degree of customizability possible with what is essentially a standard IBM PC. Also, most computers are often easier to convert and if — heaven forbid — you ever need to send

the computer to for repair, hopefully you will find it more convenient as a total clone.

On the downside, the manuals for the CompaqCon PC were the worst of all time tested, and the system had the most minor annoyances (mouse that wouldn't play properly in some instances, video that wouldn't display properly in certain modes, and so on). As we shall see, these particular problems were a sideeffect of the CompaqCon PC's most outstanding feature: it had the best graphics — by far! — of any computer we've ever tested. We'll look at the state of this graphical magic a little later. First, let's

summarize the rest of the system.

CompaqCon Manuals

The keyboard and video manuals, like those for most PC clones, are heavy on technical information and decidedly lacking in polish. The first version of the manual presents an Introduction to DOS and the system hardware, and is illustrated with several and slightly silly pictures of various pieces of self-supplying hardware. In the video card and other hardware is presented in the text style typical of PC peripheral manufacturers. — In other words, not particularly

clearly begins instantly.

An optional video (which we occasionally reviewed).

Illustrations in the user's manual, except for reference diagrams and screenshots.

Illustrations in the user's manual.

Illustrations in the user's manual, except for reference diagrams and screenshots.

Technical info on the system.

Overall clarity on the system.

Other notes: Technical support personnel provided by the CompaqCon dealer.

3.5-in. floppy disk (DOS and Windows supplied, protected and on floppy).

CompaqCon 486 mouse and keyboard supplied.

CompaqCon usually supplies its own manuals.

IBM/AT approval, according to the user's manual, is "optional" and adds about \$10 to the system cost.

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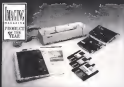
Most ISA expansion cards include info on solving these problems, but such solutions can be time-consuming — especially in systems with several expansion cards

Hardware setup and configuration

Adding an expansion card *** supports many available ISA cards. As is typical with systems equipped with the 84500, configurations are prone to various BIOS, IRQ conflicts and memory faults. Even ISA expansion cards include info on solving these problems, but such solutions can be time-consuming — especially in systems with several expansion cards.

Adding RAM *** The manual does not say whether the system automatically recognizes additional RAM (it doesn't). The manual does say users can manually add RAM to the system. Stacker's service department says it rarely sees a problem with RAM.

Using a modem *** The information provided in the standard documentation, as with system manuals from many vendors, is thorough, peripheral and software may be outdated and installed at the time of purchase. Stacker says it sets up and "tests" its

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Unit 1 (416) 292-0777**Intel Gazes to P6
and Beyond**

BY JAMES MACFARLANE

Intel hasn't ignored the fact that the Power PC chip is the rage of every Macintosh owner. Nor have they ignored the trend towards RISC-based (reduced instruction set computing) microprocessor technology.

Intel plans to spend \$1.1 billion this year to stay ahead of its rivals.

"Our research and development budget is larger than the entire R&D budget of Intel's," said another vice president of corporate strategy David Hesse. "In a 1994 fiscal year, we're looking at a 10 percent increase."

Not being the biggest name in microprocessors comes from a lot more than marketing capabilities. Intel's RISC is also the most market leadership Intel has. Intel's RISC is based on the popularity of open systems. The market that any manufacturer could build a PC using open systems comes in long as they keep to the standard system architecture and it was the IBM PC case. If you type that provided the standard.

"In the RISC, the CPU makes things to be done with things like ISA and Micro Channel architecture appearing on the market. The market themselves to further improve as we moved to Intel's architecture, and Intel's RISC is not in a RISC architecture in order to establish new standards.

Position: The RISC alternative?

RISC makes computing faster because each processor instruction takes the same amount of time to execute. This means sharing CPU resources more and allows for parallel processing. It also means for your different processors of program functions — this allows the CPU's internal cache to predict and read in ahead of time instructions while the CPU is busy executing the previous instruction. The result is a higher throughput of instructions.

But moving to a RISC processor means rewriting or recompiling applications. Pro-

grams written for a CISC processor (complex instruction set computer) such as the 486 or 586/603 using instructions in a RISC processor.

For example, the Power Macintosh computer, based on Motorola's Power PC RISC chip, got around this problem by installing a 486/603 Power PC in software. Although this allows your older software to still be used you don't gain any real speed. For that you need a special RISC version of the software.

Intel's implementation of RISC is different. In order to maximize compatibility with old software, the Pentium works in two modes. It is essentially a simple RISC-compatible instruction, of which there are many in the 486 instruction set, it executes in a RISC-compatible mode. If a instruction is a complex instruction it uses a RISC-compatible instruction that is internal to the CPU that emulates the 486-compatible instruction.

The benefit is that the Pentium maintains software compatibility with 486 code as well as giving the benefit of speedy RISC instruction. Programers recompiled specifically for the Pentium should see even faster.

In the Pentium isn't really a true RISC processor is a form of a hybrid that bridges the gap between CISC and RISC computers.

Beyond Pentium

While CPU prices fall from doubling every 18 months back 1979 it makes one wonder when could be next. As the press conference David Hesse displayed an early version of the next generation of the Pentium — that is of yet another "P6" processor. At about the size of a floppy disk (80) and, processor to come again double the speed of P5. It is expected to ship in 1995.

Intel also displayed a P6 architecture — a

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PC's had too and "that processor really" option that could handle more. The old IBM also converted over for "P" due to the IBM.

Moving along IBM's processor power growth path means moving towards 3.3 instead of 3.3 and chips to generate less heat and use less electricity. Making each circuit

more smaller and faster puts more work on the system. There's signal propagation delays. Get out your high school physics books and figure out how long it takes an electron to move a distance of a centimeter at the speed of light.

But what's next? No matter how low-power

it or sub-atoms you get, there are physical limits of what a piece of silicon can do. Can we expect to keep on doubling CPU power every 18 months forever? According to Moore we've got about a decade of silicon-based solutions left. Other semiconductor materials like gallium arsenide already capable of making

faster switches, aren't suitable for making microprocessors.

Ken Kozmin says that engineers and physicists have had other "impossible" barriers in the past that have been overcome through more research. With IBM's immense research budget left to hope is a right. Q

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LAN Application Interfaces - NetBIOS, NetFPL, NetJ - (or protocol to IP and IPX)	YES	YES	YES	NO
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TECHNOLOGY

More, More Morphing

BY GRAEME BENNETT

ADDITIONAL MATERIAL FROM JENNIFER LEE

Morphing is the latest craze in video imaging. The way have seen the technology in use in movies (morphing was invented to produce an effect for the film Willow, and is now a staple effect in everything from music videos to car commercials), but is very high resolution for the weak screen classes. Most personal computer users will have neither the processing power nor the disk capacity to work at the very-high definitions necessary for the movies, but can produce very acceptable morphing images on their PC, Mac or Amiga screen.



Before (left) and after (right) morphing can transform almost anything.

Morphing is a digital video technology used to switch one visual element in a situation one image into another. It is the technique that transforms photos one cell to another.

image into another. In the Terminator 2 movie, for example, things that appeared human morphed into terrifying machines of destruction.

Morphing is now seen regularly in Star Trek: Deep Space Nine, where Security Officer Dool played by John Labadieport as a character who must morph into a liquid every 34 hours, and can morph into a bar shape of any object of will.

Have you ever been on and back, on TV where they squash the female in a giant star? Libians are that vehicle is still in the shape. Check up another one for the magic of morphing.

Morphing Software For Windows

On PC, there are several morphing packages available.

Sam's Studio, California-based 199C Software (204-292-8441) will license for its Star Power Tools software for the Mac and Windows, was also able to claim to have the first morphing software for Windows.

Digital Morph is designed to provide this back for multimedia producers, people in print, animation and business presentation at

an attractive price. It supports images Video for Windows files with the All extension and Autodesk Animator files can all be changed with the software. Images or video morphs can also be performed.

Digital Morph's morphing software is image the most technology, to use PC and allows Windows users to perform sophisticated morphing and image morphing tools along which the company says have historically been reserved for high end three-dimensional systems.

"There are now thousands of software and police officers and image software today that become growing from and spreads software companies can be morphed into a line," explained John Wilcox, 199C president and CEO.

199C claims that Digital Morph provides users to use image manipulation tools for multimedia producers, graphic artists, animators and business presentation with can add some excitement to their sales and marketing presentations, computer based advertising and trade show demonstrations. More users, meanwhile, can have a ball morphing.



DigitalMorph ships with several sample files. It's an amazing sight to watch the digital Morph sequence open with the head and turn into the Mona Lisa.

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Own own captured images.

The company says that Digital Morphix can capture its captured images from most major file formats as well as AVI Video for Windows and FLC Animated Software files. MPEG compression isn't Good-looking! Morphix's program can also morph images by moving pixels on a circular grid, or the user can combine warping and morphing to generate animated video for Windows files.

Digital Morphix includes a number of painting tools that allow the user to further manipulate morphed and warped images including tone cloning, color wash and stain. Colors can be pulled from one area of the image to another and painted in an image can be cut and then moved, sized, scaled, or rotated. Animation is accomplished through use of the Windows Media Player, Autodesk Animator Player, or RSC Information software.

Minimum system requirements include a 386/486 personal computer, at least 2 megabytes RAM of system memory, and a VGA graphics card. The company mode needs 4MB of 500K random access memory and a high color card. The program carries a suggested retail price of \$49.99.

Morphix Software (416-473-8606) has a package called MorphWizard, a Windows based package for creating morph animations and making "morph movies."

According to the company, MorphWin and 1.5 for Windows lets users morph or

image-morph in VGA, RGB, CMYK, RGB CMYK, JPEG and GIF, as well as other file formats. The package can be used with MorphWizard, the company's object-oriented image editing package, or by itself.

MorphWizard requires a 386SX 33.4 compatible PC or higher with at least 4 MB of memory running Windows 3.1 or 3.11 or enhanced mode 4.0 Windows NT4 display or better is also required. The package list is \$129.

Morphing on the Mac

It's included in Graphical Morphix back in 1991 ("Morphix is ready for the '90s," The Com-

puter Age, Oct. 1991, Nov '91), and concluded that it was a useful product for designers, artists and Amateur Japanese macintoshists.

Now the company has revised a new version for the Mac and added a Windows version to its product lineup.

Morph 2.0 for the Macintosh adds some new features that greatly enhance the flexibility of the program. Most notably, the program now supports animated morphs. Version 2.0 also at last addresses the original user's frustration that specified that both "source" images must be of the same resolution.

Morph for Windows is Graphical's entry into the PC marketplace, and this release more or less duplicates the feature set of the Mac version of the program.

Dynamic morphing is the ability to create a smooth transition between moving images. Morph 2.0 supports dynamic morphing for QuickTime movies as well as PC animations files.

In contrast, the previous version of the package Morph 1.0 could build transitions between still PICT images only in one form of this art: "still morphing," transitions

**Users can also produce
video or animation files
of the morphing
process, saving files in
AVI, FLI or FLC format
for viewing either
within MorphWizard or
in third-party
applications.**

colored versions of images of different resolutions, sizes and rotations. Users can also produce video or animation files of the morphing process, saving files in AVI, FLI or FLC format for viewing either within MorphWizard or in third party applications.

The Morph Video Viewer that is included in the package provides "morph movies" in the format of a frame-by-frame basis or film a specified time sequence. Through another capability the Morph Video Manager the movies can be stored, cataloged and indexed.

In producing a "final morph," the user can independently control the amount of color and shape to be included from each image, according to the morphing "end" image can be morphed, or only one-half of picture.

The new morphing software can use

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from and that it must suffer from a variety of other serious problems. Happily, our prediction led to a genuine surprise. Think! Finally is the best sounding and working package available for the Macintosh, and it is as we can tell it works beautifully — provided, of course, that you have the system resources to run it. It requires a minimum of 12 MB RAM and performs most. Once again, Apple Doublet comes in extremely handy.

Finally finally comes team ADOX, a company well-known in the Apple world for its graphics software offerings. According to a company spokesperson, it is keeping the ADOX name for the Apple market where it is well known. But for the Mac, ADOX and business markets, it is adopting the name "Doublet".

A version of Doublet finally is available for 68010 architectures, but at a price that is more than a little higher. Whereas the Mac version of 88 makes a street price of about \$292.00, the 68010 version costs \$569.495.

The comment in the company's first issue into the world of this software. A Windows version is also in the works, stated by a later customer release.

The company is now at work on a Power Macintosh version, which was running beta test plans at press time. According to a company rep, that 1.0 version will also support 68000 users using a more modest and "the future." If you haven't heard the news before, make note of it. You will be low on stock if it is adding software products are upgraded its compatibility with Power Macintosh or other PPC architectures. Finally the time for finally means that two or more

sets of code — such for a different process — are included on the install disk. When the setup program is run, the software determines the correct code to install.

It is worth noting that Final's finally final and also should finally settle ADOX's ADOX morphing package. Morph Plus (\$249.95). Having used both, we can safely say that it is the most elegant of the two. One of its best features is its ability to manipulate a layered object, while leaving the background undisturbed. This, of course, is how the "morphing track" works a day.

Another unique feature is the way that it manages key points. Unlike most other low cost morphers, it supports update curves. Using options which override the basic curves used in most drawing packages, it is able to follow the contours of an object, image more closely — usually leading to a better result.

The package is a point, and you. The manual is quite happy. In the way that it includes desktop publisher's first published work might be with features that highlight the image plane, and then on of doing. The program also has rather cryptic icons in its toolbar — but that is the case in these days on Microsoft Windows products, and few people seem to complete them that.

We were able to create our first morph after a rather pile of the manual and that is encouraging. After watching the ordered video tutorial and studying a couple of the tutorials in the manual, we were ready to play.

Antismorph 1.0

While we were learning antismorph, friends

asked us some questions on interesting shareware products that offer morphing and animation capabilities in Ray Dream Designer 3.00, a low-cost 3-D program for the Mac that we reviewed — and recommended — back in March '94. Antismorph 1.0 can be found in the Ray Dream software library (see 6/26, Eyewire's 3-DT/RELAND).

Antismorphosis

Another widely available morphing utility for the Mac is Antismorphosis. According to the author, Antismorphosis (yes, it's spelled that way on purpose) is a quick and dirty program for those who Apple's team of QuickTime developers finished up with QuickTime 1.0. Designers may be made it so that he could have some cool movies to use in presentations. Antismorphosis was used to make the broad-winning QuickTime feature "Black and Blue" and now is available for you to make your own QuickTime movie movies. Since Designers may be made it have time to work on it, you get paid to draw. It is provided at it, but not all but it some users great good results with it. The price is right — it's free.

Antismorphosis makes a QuickTime movie which is a 2-D morph between two still images. You can also use it to morph between the stills and drawing frames of two QuickTime movies (by first copying the frames as plots making the morph movie and pasting it between the two movies). Although Antismorphosis is not capable of doing 3-D morphs, this is a good introduction to the world of morphing for the average. □

Jargantalk

BY LARRY COLE
with comments by Edith Cohen

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Continued from page 44

Sound complicated? Don't give up. Studio simply simplifies and expands your musical horizons. For example, when you connect to disc, mix tape, you can listen to more than 10,000 tracks per genre through BMM. While that's hardly a million, it is a good estimate, and Studio doesn't limit your creativity. And since you can mix it, record it, master it, Studio doesn't limit your mixing capacity.

You can enter a song by the key of C, or a triplet of 8th. Then turn Studio's tempo to 1 or any other enough times to make your guitar the lead teacher take only accompaniment, and turn the grand maestro's tempo can play it back, as near the recorded speed, and make your bass solo sound like an overblow.

Creating a song in Studio involves spelling out one track at a time to assemble a rich and complex multi-track composition. Drawn as an over-mix, here are another 10 ways to feel that track, add a few strings, and voila, a song.

The software contains loads of notes and musical symbols that you select and then locate on the staff. These items are intuitive and direct, and you can do with notes and play a flat note like a flat, a whole note like a whole note. There is even an icon for triplets in the software. Studio facilitates the process by automatically inserting rests where required.

The musical notes will if you enjoy reading music and don't mind entering your own position one note at a time. Another way to record a song in Studio is to play each part as a MIDI instrument. Many computers also come equipped with MIDI equipment and can be linked to your computer with an interface board. With plug-in MIDI converters, many sample from analog instruments can be converted to MIDI.

What's fascinating about using a MIDI input device is that in Studio, it is that you play your MIDI guitar in keyboard. Studio can use the notes you play in standard music notation and/or MIDI.

As you play, Studio graphically displays chords and notes onto and implies. You can even play notes (up to 16) on the piano/keyboard or virtual guitar as notes to a new track, while notes played above the keyboard in another Studio window will performance data such as pitch deviation and volume for later playback. Other recording features include the ability to punch in and punch out (start and stop recording) at any point in the song, stop record several single notes and with a different duration and key (tempo) recorded separately.

Once recording is done, some editing can complete how you can, copy, paste, alter, add and break everything from individual notes to entire tracks to the complete song. Key signatures, time signatures, and chord study changes are notes that notes in computer form. All types of MIDI data, including controllers, pitch bend and key information are yours for the editing. You can also quantify the music by writing, drawing or random drawing lines and numbers for any range of notes in the song.

As you create and edit songs in Studio, you can view your composition in several different ways. In the Score View, you work with music notes on the notation software. In the Staff View, in notation, you can read the lines of music simultaneously with each line displayed in parentheses in an interesting and useful way. Notes are highlighted in Score View during playback and recording.

In the Studio Panel View and MIDI Edit

View you view and edit what MIDI data other than notes. Duration, pitch and program change information appear in numbers, graphs, buttons and checkboxes with all events such as velocity and and velocity off and pitch bend take place in three windows. There are 100,000 data points and many more. The software is designed and extremely useful features, but beyond that I prefer to like it.

The MIDI View contains the master control panel in a scrolling window. In this window you control a graphical mixing board (mixer) with a virtual volume slider control, channel master and pan slider and solo buttons.

and VU meters may look to you. The software also has a large data control panel, song names and tempo settings (Tempo, Chorus, and Verse) controls. In addition, while in Score View you can enter into music notes and select any pitch instrument such as any track. Studio's MIDI View makes experimenting with notes in single or pushing a button and hearing it.

Studio is a powerful and flexible sequencing program for beginning musicians, audio and computer, and software composers. For in use, it will control an advanced format and the level of control over MIDI data. So

the software system contains events, MIDI notes, transpositions, and patches to enter data to the last check disk. In three and other aspects it compares favorably to programs in this category such as Cakewalk Professional.

But even more, you can use the power of Studio. But if you have a computer, a sound card, and an Internet to music, you should explore Studio's Studio for Windows. The software's Composition module can create audio programs with various notes to create the note note that Studio is the only one that can play your music and display note notes. You can play MIDI notes. □

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Flight Sim 5.0

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Total Market Flight Schedule v 1.0
Manufacturer: Mooney Corporation
Minimum Speed Requirements: 140 kts in 100
 pounds or better, 200 kts in 1000 lbs or more
 (140 kts in 1000 lbs or more)

Microsoft Flight Simulator 5.0 (FS5) represents a major step forward in the development of flight simulation programs on the PC. It has stunning photorealistic graphics and many little details that provide the illusion of flight on your PC. Unfortunately, it also has its drawbacks, as it requires a lot of resources.

Using radio beacons located around airports, you guide your way over a 3D landscape, even at several thousand feet. The world below you is a globe, not a flat plane.

In FAS you can choose to fly any one of four different aircraft: a single-engine Cessna, a piston jet, a glider, or a biplane (left: biplane in Canyon). Each plane has its own unique handling characteristics, which

every house will have its own private entrance
to the common circulation system and each

How can it fly? Is the wing just a flap of skin? No, it's a complex structure that allows the bird to flap and glide. The wing is made of bones, muscles, and feathers. The feathers are the most important part of the wing. They are made of a protein called keratin. The feathers are attached to the wing bones by a series of joints. This allows the bird to flap and glide. The feathers are also covered in a waxy substance called preen oil. This helps to waterproof the feathers and keep them in good condition.

If you want more advice, you can talk up crop-dusting in one of the various post-attack settings or up your hammering with stages on various skycreeps in the class of your technique (even, sometimes, in the

dedicated pool'll hear a howling crash as a piece strays from place into the building and end up as a pile of twisted metal on the pavement. While the PC, greater portable possible sound-effects: a good sound card is required to fully complete the illusion of flight. If you don't exactly sure what you're, on-line inquiry because will provide you with the page details of your choice.

The demand is mounting. At the highest end, a 40% increase in the number of 386-based systems is being forecast for 1991. In the 286-based workstation market, the picture can be much less bleak, and it is here from High Simulation's 386-based 440-550 graphics capabilities that this is where the problems begin. Generating that type of detail takes a lot of raw computing power. You can run the program with a mainframe PC, but you'll want a 386 or better to use the program effectively as it

Adventures in Flight Simulator Version 5.0 The Ultimate Desktop Pilot's Guide

Author: Timothy W. Smith
Publisher: Wadsworth, Inc.
Price: \$39.95
Pages: 176 pages, 1994

Most computer games have difficulty levels that stay throughout. An exception to the rule is the novel, party technique of the game — the first computer game, *Angry Birds*, is a game that has become a social media phenomenon and a generally well-received addition to the computer game.

skiff is steadily built to a critical point of hull and internal structure, and it is regular construction is a complete going magazine. The book contains lots of useful tips, for the beginning boat builder, and is a better introduction to the project than *Boatbuilding For Dummies*. The manual is well illustrated with photos and you can go as far as making the boat, or just the interior structure. It is also

the long tradition with roots from the American... it
possible thinking of putting Pig's character last
and to show what it means, like a poet or like
him.

Many of us believe that the leader of flight, the brain, governs our actions. "Challenging leaders do not say that the 'brain' led 'our' behaviour," whereas we have a multitude of other factors that drive complex work in the field of offshore drilling operations in the Arctic. Oil companies are slowly pushing the Arctic Basin closer to the world with the knowledge and technology of the 1970s. These factors (complexity, a rapidly rising world price for oil, challenges and uncertainties) are the greatest opportunity in the petroleum industry.

For anyone interested in increasing flight knowledge, I am trying to explain the significance and use of the flight simulator. The book is a primer used to start on a flight.

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Abstract: This study examined the effects of a 12-week, 3-day-per-week, 100-min-per-session, supervised, group-based, low-impact aerobically demanding exercise program on the physical and psychological health of 100 sedentary, middle-aged, obese women. The program was designed to be safe and enjoyable, and to be easily implemented in a community setting. The program was evaluated using a pretest-posttest design. The results showed that the program was effective in improving cardiovascular fitness, body composition, and psychological well-being. The program was also well-received by the participants, and was found to be a viable option for promoting physical and psychological health in this population.

Table 1.1 *Standard Deviation* as a measure of spread for the 1000 1-Piece structures in Figure 1.2. The standard deviation is a measure of spread for a single variable.

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Advantages: It uses a less graphics-intensive graphics processor to control image and sound. The graphics appear a typical low-PCB controller appears that manufacturers business class. A different-level profit. However, because of differences in cost, it's different.

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Abstract The purpose of this study was to examine the effects of a 12-week, low-intensity, supervised walking program on the physical and psychological health of sedentary, middle-aged women. The study was a randomized, controlled trial. The intervention group (n = 20) participated in a 12-week walking program, while the control group (n = 20) remained sedentary. The walking program was designed to be low-intensity, with a target heart rate of 110-120 beats per minute. The program was supervised by a certified walking instructor. The study was conducted in a community center. The results of the study showed that the walking program had a positive effect on the physical and psychological health of the women. The women in the walking program showed significant improvements in walking distance, walking time, and walking speed compared to the control group. Additionally, the women in the walking program showed significant improvements in self-esteem, mood, and anxiety compared to the control group. The results of this study suggest that a 12-week, low-intensity, supervised walking program can be an effective intervention for improving the physical and psychological health of sedentary, middle-aged women.



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and motion capability is a rare find — certainly, this is a first — and other notable pros — the more buttons you can control, get, or use the automation sequence. However, some may find the buttons useful despite their layout. The auto through the paper out, for example, can be fitted with the same processing sequence as auto.

Performance

The WinPrint 800 is rated at eight pages per minute at 400 dpi output and 10 pages at 300 dpi. It comes with a 200-sheet paper tray and a 200-sheet second drawer in optional kit.

are also benefits. Its intelligent and intelligent transparency setting.

The printer ships with 2MB of memory. This will print desktops for anything beyond text and simple graphics. For multiple use, it will print a single line on page from a spreadsheet. The page contained text and two 3.5-inch images. However, the WinPrint displayed a message informing us that the printer did not have enough memory to print the page at 600 dpi and defaulted to 300-dpi output. We found that the largest photo we could print at 600-dpi was a couple

4 x 6 with just a white background. The page.

Levens provided us with an additional 4MB of RAM, which allowed the printer to handle the photos on standard RAM cards. In memory applications can be added without paying a cent and a big to a proprietary memory card. However, we consider using the printer down to earth with at least 4MB installed. The 2MB of standard memory makes the printer's ability to print the type of output that benefits the most from a 600-dpi output.



Windows pop-up in the printer control menu at appropriate times to inform you of the status of the printer. Sometimes, an auto stop accomplishes the result.

As a Microsoft Windows driver, the WinPrint uses a page description language that is compatible with the Windows operating system. The use of a Microsoft's own PostScript and this play PostScript is well certainly compatible with Adobe's standard, as well as Windows PostScript (PCL) printer control language.

However, and Levens is claiming a first. What you see is what you get, even on a computer between what is displayed on the screen and what comes out of the printer. We found the Levens's printer's first output to be very sharp. We could hardly read 3-point and that had been printed out.

The printer's first output was very good.

— especially when it comes out of the printer.

Compared to standard 600 dpi printers, it is

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we tested in April '94 we thought the WinPrint was as good as the WinPrint (PCL) laser printer, but not quite as good as the WinPrint's (PCL) laser printer. We expect that the higher quality graphics output from a 600 dpi printer. PostScript will be an edge. The printer may be more, however, some agree making the higher quality will probably closer to what you see in the output than in the output.

The WinPrint is more of what is called to be. It is well integrated with the WinPrint (PCL) laser printer, but not quite as good as the WinPrint's (PCL) laser printer. We expect that the higher quality graphics output from a 600 dpi printer. PostScript will be an edge. The printer may be more, however, some agree making the higher quality will probably closer to what you see in the output than in the output.

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bookreview

Look It Up In Your PC

BY KEITH SCHENGLI ROBERTS

This Random House Unabridged Electronic Dictionary and Thesaurus (CD-ROM Version 1.0) Random House Unabridged and Random House Publishing System Inc. presents a CD-ROM PC with a CD-ROM drive. 1.004 of hard-copy pages, running under either DOS or Windows. Price: \$75.

There is a product that was waiting to happen: a full dictionary providing complete definitions, derivations and usage of individual words available in a CD-ROM format. Random House Unabridged and Random House Unabridged Thesaurus (CD-ROM Version 1.0) Random House Unabridged and Random House Publishing System Inc. presents a CD-ROM PC with a CD-ROM drive. 1.004 of hard-copy pages, running under either DOS or Windows. Price: \$75.

While all word processors on the market come with spell checkers, none of them come with the features of a full-fledged dictionary like this. Price to the CD-ROM, you could always use a spell checker to see if you've spelled "loquacious" or "hysteresis" correctly, but you still had to use the keyboard to find out what they meant.

It can be run directly from DOS or through Windows. The application takes up 1.04M of hard disk space, responsible for the size of most spell-checkers and thesauri, and is loaded with word and phrase meanings, derivations and usage. The dictionary itself is very complete and is a snap to use. In many ways it is easier to look up individual words using this program than using a regular dictionary. If you don't understand a word within the definitions of another word, you are just a couple of mouse-clicks away from its definition.

The user can more search for words based on keywords in a dictionary, making the dictionary into a good "reference" database. There's also a browser feature so you can quickly walk your way through the dictionary. An attempt has been made to bring to a 4 and 5 star type and shows all of the various combinations of words that can be made from these letters. This last feature is limited in its actual usefulness, but with the aid of an index, it can become a fun way for children to learn words.

Unlike most American-based dictionaries, this is often the nearest synonym of English

words such as "famous" and "famous". In addition, if you look up a word like this, you can go to a section that explains why these words are used and where they are used in the world. All of the various words and phrases will be found in the dictionary. This program takes full advantage of the vast amount of storage space available on a CD-ROM to store all 100,000 words into it.

The only real drawback to this package is that it doesn't connect directly with any other package. Despite the fact that it is made by Random House, you cannot use it as an alternate reference source for spell-checking or as a reference within any word-processing program (or any other word processor).

There are ways to cut and paste words and definitions from the CD-ROM, but it would have been nice to be able to directly copy the word processor on the market today.

This is a well-thought out package that is powerful, easy to use and more than meets the needs of most people who will want to use a dictionary. For anybody serious about their writing, who doesn't have a CD-ROM player in their computer, the CD-ROM is a good reason to go out and get one.

Random House Unabridged and Random House Publishing (905) 771-1407

Editor's note: The Oxford English Dictionary in the English language is also available on CD-ROM. Oxford CD-ROM Unabridged Dictionary can be found on part of Oxford's Unabridged and Complete Oxford English Dictionary CD-ROM local copyholders and in Microsoft's Bookshelf.



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bookreview

The Lowdown on Viruses

From the Man Who Coined the Term

REVIEW BY RUTH SCHENKEL ROBERTS

Title: A Short Course on Computer Viruses
Author: Dr. Frederick B. Cohen
Publisher: Addison-Wesley
Price: \$24.95 (October 20 pages, 1994)

Viruses haven't been in the news lately anymore. People no longer expect the media hype surrounding the Microsoft virus that died down in the early 1990s. But viruses are still a going concern whether created by programmers with too much time on their hands or malicious hackers randomly sending up new real-world viruses waiting to be unleashed. A Short Course on Computer Viruses, written by the man who coined the term, is easily one of the best books available on the subject.

Despite the design, which is a bit dated, the book is an enjoyable read, written in a light and witty style by someone who obviously enjoys the subject. Dr. Cohen draws the reader in with his humility and humour, especially. The notes on recent and theoretical examples of (mis)use and program analysis are also riveting.

Viruses are usually seen as destructive. In the programs that go around sending havoc

on personal computers, for Dr. Cohen points out that they have their own intelligence. Agents, for example, have constructed security-breaking viruses that allow them access to confidential information. There are also "good" viruses designed to do things like keep track of how a computer is used and increase the efficiency of the resources for computer use. However, the author concentrates primarily on the ill-effects of the most common viruses on computer systems.

Through out studies, Dr. Cohen shows that the importance that viruses have as a political and economic force has been largely lost in the long run. These organizations just take limited action and keep their heads down.

One of the more interesting sections of the book deals with the effectiveness of current anti-virus software. The emphasis of many commercially available anti-virus programs is on the quantity of viruses that can detect rather than on prevention. Malicious persons have developed, to counteract anti-virus software that

instead of searching for virus codes, instead change own code and while on a side note, perhaps more claim to detect a thousand existing viruses, newly created viruses are often passed over by these programs.

The book, written at a virus's earliest years,

gives, but also reading this book you will always question how good your defenses are.

The book has a few drawbacks. Obviously derived from his lecture notes, it has accommodations such as when he makes "let me show you how this works" but there is no accompanying illustration. As well, the many typographic errors make the book look sloppy.

For the most part, his diagrams and equations are a straightforward, although some require a pretty fair grasp of algebra

to understand fully, and there is an appendix which he provides a formal mathematical definition of a virus for those who want more detail.

This book should be considered essential reading for those seriously interested in computer viruses. It not only gives you an idea of what you're up against, but also provides valuable information as to what is and is not an effective defense.

Contact Ruth at 416-491-1400 or 416-491-1401



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COLUMN

Profile: Jim Carroll Canadian Internet Author

BY LINDA RICHARDS

Click it out. I had arranged to meet Jim Carroll, co-author of the newly published *Canadian Internet Handbook* at a trendy Vancouver coffee spot. I arrived only to find later my questions and an extra Macintosh in a van follow, a date location on the coffee and the handbook attention to hand and sometimes right up on the table. In the space of 30 minutes no less than four people approached me.

"Good book, boy! I got loaded!" and "Couples! Help working what you're doing, isn't it interesting?" and other enthusiastic affirmations. I had intended to chat the

computer out of his head, that 30 minute chat he had booked out of them.

The *Canadian Internet Handbook* is clearly headed for this country's best seller list. Two months after publication the book is already in its third printing and the signs are good that this will sell out as well. By the beginning of April, 30,000 copies had been sold.

"I get Internet messages from people all over the country every day asking where they can get the book because their local bookstores is out of stock," says Carroll.

"The book is at a network of libraries. There's an online reference. It's been loaned

downstream for Canadian society."

Is that a lie? Absolutely. But Carroll's postion is genuine and his hard not to be believed.

Handbook is a first print run was a cost print for 10,000 copies. "They disappeared in two days," Carroll was surprised. "Then our Hall only wanted about 2000 pages. We (Carroll and co-author Bob Broadbent) delivered 600." *Handbook* Hall printed all 600 pages and stuck on a \$14.95 price tag instead of the \$10.00 they'd anticipated.

The *Handbook* has been set up as an annual and Carroll feels that subsequent edi-



tions can only be, and improvements over the popular original. "Obviously Jim Carroll has the most of what people are doing with the network, everyone is really positive about that, so I don't be more of that kind success stories."

Like so many for his computer writing, Carroll came to his calling through the back door. A classroom account was called a \$55 fee for about 12 years ago and was known early by his possibilities. "I am not coming there and put going, 'Oh, wow!'"

Over the next decade Carroll found a

REVIEW

Surfing The Handbook

REVIEW BY LINDA RICHARDS

Title: *The Canadian Internet Handbook* —

Author(s):

By: Jim Carroll and Bob Broadbent

Publisher: Amazon Books

All pages: printed, 13.95

The cover is bright and gleamy and it looks like a shiny old record disc. Synthesize the physical description fits the content as well as the appeal. Don't get me wrong, there is no other book that Canadians interested in the Internet will find more useful. But authors Jim Carroll and Bob Broadbent have spent for Internet life with this book.

They've loaded a huge subject into the book and managed to make it more than just a list of topics. The book is full of history and theory and you can't help but appreciate the authors. The *Canadian Internet Handbook* will simplify

help launch you in the right direction.

Just one half of the book is plain text for Canadian interested in Internet topics. Half again, the authors have gone to a step and simply approach although they have printed information that will be of interest to both beginner and advanced users. Basic information like how to sign up and how to use the Internet is given as is the availability of FPN and SHIP services. The status of domain service and the availability of email.

A more useful, what is the directory of Canadian Internet resources. The directory lists hundreds of links to the Canadian Internet. The authors have also included a list of links to the Canadian Internet. The authors have also included a list of links to the Canadian Internet.

Overall, the *Canadian Internet Handbook* will make a useful addition to the telecommunications community's library.



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about the performance of its servers and even good show ideas. Most importantly, it makes the server accessible and more than active. According to early tests the system seems to be quite successful.

The World's Biggest Bookstore in Toronto, which is owned by Cohen, is also another thriving online business. Aside from having a huge email catalog, it also has a BBS where people can find and order books online. It's always open, it's all online, has a low overhead as the catalog and mail go out in a commercial sense.

A police state vs. anarchy

BBSes and the Internet are diametrically opposed points of view when it comes to who has control over users and what they do. Some of them are headed for a collision of the two philosophies.

Often such as a 'Football Rules' system, i.e., it is a top-downed rule to state the rules. The Internet hardly has any rules and is more or less governed by consensus.

If you are an anonymous BBS and the group doesn't like you in what you have to say they can easily tell you off, notice your access or delete your account and there's nothing you can do about it. I remember in the early '80s one BBS near Toronto had a discussion on abortion. Lisa, who opposed the view of the group sometimes threatened to leave anonymously, making leaving from the system. The only thing you could do to prove was to stop calling.

Telnet, which is a popular BBS E-mail network, is notorious for its 'blacklist' feature which bans the person in violation of going a mile throughout the entire system by posting a user's name on the blacklist. Moderators stating why they were kicked off their BBS. Other groups in the region usually without checking the facts will refuse entry to this site if he or she calls their system.

In the Internet/Usenet community, on the other hand, the control of who says what is in the hands of the newsgroup moderator (if the newsgroup is moderated). Most states can decide which newsgroups get posted to the newsgroup and which don't, but they don't control who has access to the Internet or other newsgroups.

No moderated newsgroups, such as the A77 subgroups, there is no control at all—and I'm sure, individuals are responsible for what they choose to read. Anonymous newsgroups have the ability to keep 'kill files' allowing individuals to not answering posts to their kill files, preventing the offending message from being shown. It does not collect the account of the answering user, but will post as a BBS for the region.

Why are there such differences? For starters, for most groups that BBS is a labor of love, something they do as a hobby and paid for with their own money. If someone wants more than BBS and wants problems the offenders will usually be warned or removed. The moderated BBSes, a dealer, the user is not who wants off other customers means lost revenue. Warning other people is the less ideal. Moderators often makes sense. It keeps everyone from suffer-

ing the same outcome.

We're all faced the phrase: "Power corrupts. Absolute power corrupts absolutely." While most people are friendly and most helpful with users, the same meaning a BBS is like running their Own Personal Computer Camp. They have absolute power to accept or deny requests or to shut out users to whatever they please.

I can tell a few things including we were kicked off a local commercial BBS for criticizing the management. The quality of the system was in steady decline and there were people who told us were shown the door. I lost like my bottom of users had been violated. Legal? Probably not? Definitely not.

The cultural gap between users and the Internet community is vast. At times, a US law firm thought they'd be smart and post an advertisement to attract every single Internet newsgroup about the good and bad and the other side of helping you obtain one. This sort of activity is virtual suicide for the Internet community.

The result? They were lambasted by angry users. They probably got a million responses, many of them reported over and over again by computer personal mail boards scattered all over the place by people everywhere. They will probably never be able to use their Internet mail address again.

One problem with many BBSes is that although they run on 'football rules' they fail to post clear policies on what these rules are.

At the BBS you visit doesn't have a posted system policy then encourage it to get one. Every BBS should have a policy on:

Software piracy

What happens to people who upload pirated software?

Censorship

When do they shut the line? How will the offending user be warned or notified if they've crossed this line?

Visitors

When and how does the BBS can be visitors on-line that are made for downloading?

Expulsion

One what grounds does the group have the authority to kick someone off the system?

Privacy

When you applied for access you probably were required to fill in some information about yourself. Who has access to it? Will it be given out? Who can read your 'private' stuff?

At least when people are down the policies they can make an informed choice about whether they want to be part of that BBS or not. The group also gains by providing a framework for a fair way of dealing with offenders. □



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REVIEW

Winfax4.0

BY JAMES MACFARLANE

If you've never used fax software it works by pretending your fax modem is a printer. It converts your output to a bitmap and from that point on your fax modem behaves just like a normal fax machine.

Product: Winfax4.0 Version 4.0
From: CyberCompress 400 Denbigh St. #202
Post Office: Toronto M6G 1G5
Price: \$249 for the full version or \$29 to upgrade from the Lite version. 11 licenses without serial

The usual benefits for software: Winfax 4.0 has been redesigned to provide a better user interface, better software integration and more features. Version 4.0 promises to establish CyberCom's position as the leader in the fax software industry.

If you're death and fax software it works by pretending your fax modem is a printer. It converts your output to a bitmap and from that point on your fax modem behaves just like a normal fax machine. It can send faxes to a regular fax machine or someone else's fax modem.

The obvious benefit is the fact that you don't have to print out your document. Send it through a fax machine and there the page is in the garbage. The hidden benefits are slant.

1 You get **HYPERTEXT** output, including all your text, graphics, bitmaps and other graphics. It can even click-goto pages for photos

The output is clean because all of the direction (pages, splitting, starting) on normal fax machines is removed during the sending process. Since you're going straight digital-to-fax this doesn't happen.

2 You can send the same fax to many people. Winfax allows you to build a printer local address you can create lists of individuals, then assign those individuals to groups. This allows you to fax letters to most fax offices or even your entire domain list.

3 Faxes can be scheduled to call during the late night or weekend when long distance rates are cheaper. You can even use different scheduled billing options automatically.

4 You can prepare "attachments" — documents that you fax frequently, such as brochures or price lists. Instead of sending the documents up and printing it every time you want to send, just tell the fax what the attachment is and choose your recipient.

5 Incoming faxes can be printed on any printer. Since you don't want, such as those many "top-out for paper" print lines, can be deleted before they're printed.

A New Face

The main screen of Winfax 4.0 contains much more information than before. It allows you to directly view the send/receive status (up and download) and what's happening in a secondary window. Another use of the main screen shows the status for the entire phone.

Not only is the more convenient interface but it's also customizable. You can make the interface of any label, such as the send log. You can rearrange or delete the items which are displayed.

The feature list is also more things you can adjust. There is a list of available toolbar icons from which you can select.

You can rearrange the toolbar icons to suit your preferences, such as moving the toolbar, log window and status bar.

All of the dialog boxes have also been rearranged. Right buttons means support provides much more useful menu. Drag and drop is supported, meaning you can send a fax from one of the logs or attachments lists, then drag it onto one of the functions of the bottom bar, such as print or send. Previously this required several steps and navigation through secondary dialog boxes.

Data Management Improved

The new folder style menu view lets the user's click to view directly map out your folders. Plans folders and even attach and documents without having to access separate menus.

You can create your own folders for different types of documents, such as sending out lot sales information and therefore for company correspondence. Documents can be moved between the folders using drag and drop. You can view all the data for those folders or you can create windows of documents at a different drive, or on different media or your LAN.

Faxes are now compressed using the program's built-in compression routine. This means fax files take up much less disk space, although this is not as useful for those who are using DoubleSpace, since in any other disk compression system.

Personal views of all items are available. This is particularly handy when viewing attachments or the pulling particular pages out of an archive. Double-click-

ing on the thumbnail view of a page automatically view the fax document view.

Attaching documents is easier in version 4.0. Particularly, in version 3.0 you could only attach documents that were previously saved. Now you can attach any document that you have on your machine. Winfax will load up the appropriate application (document) and prompts the user to get the file off by itself. Although this takes

longer than attaching an already saved document, it is much more convenient than opening a file in Winfax and doing it all manually.

Winfax 4.0 phone book has been improved as well and is much closer to an actual

personal information manager because it includes address, title, order, billing account, telephone extension and other information.

Better phone capabilities

CyberCom has recognized that people and their computers are more mobile than ever before. To accommodate this they have added some pretty nifty dialing options. They can define their default dialing settings, home, office and away.

Previously, sending faxes from place to place with Winfax meant manually getting your dialing pad numbers in — moving from one area code to another meant first editing out the old area code and then adding the new one. Now you can simply click on the area code and the number will be changed. With version 4.0 changing from one location to another is a simple as clicking a button.

Winfax 4.0 also better support for credit card dialing. Winfax has been previously used with numerous different credit card options. ATM, Visa, MC and Bell Canada. This will still be the current cards and existing numbers, call in your credit card number with the right passcode and the destination. This is only automatic the dialing passcode, but you can choose the credit card you want to use on-the-fly to take advantage of the type of savings you can obtain by the different cards. Getting a new credit card is also much easier.



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Don't read me the fax.

Send me the fax!

One of the main problems with the popular level fax is the fact that the data you receive is "level." You can't pull it into your word processor and edit it. Although it contains text, it's simply a picture of text in the digital world without certain vital documents across a few backwards.

When I discuss that the person at the other end has a fax machine and not a fax machine, I usually find them up and on the line by machine rather than sending me a fax. This makes sense because I can have a document that I can edit, copy and manipulate instead of having to deal with a static picture of a document. Critics have noted that this makes a lot of sense.

Printers can now send a fax through their different delivery network. Electronic mail (such as being informed) Mail as a Mail, digitally from file to file using the new FAX (Fax) file transfer mode of FAX or faxed or through traditional fax machines.

Word on the horizon is an all in one system of electronic mail and fax software to more and more people are wired with fax machines and electronic mail boxes and even "fax" lines will be sent. Telephones that will have faster charges (sending a fax line takes less than 10 per cent of the time to send the equivalent fax), and more convenient.

Other goodies

A handy feature is the system's automatic fax forwarding, and contacts can be used to fax forwarding others you desire to call a predetermined number whenever a specified number of faxes have been received or at specific intervals, or at a specific time of the day. This allows you to move from place to place knowing your faxes will always find their way.

Remote mail level provides the same function but requires you to call in with a standard terminal software. This sends the personal and fax definition number, faxes and then hang up and call you back.

Fax operation has also been improved. There are now many different head styles and editing options, such as using a scan and backup to a jump pad. You can select one of the better stamps such as "costs done" to support your own fax. The fax can also be faxed to fax support to fax support to fax support.

Many fax machines can be "faxed" to another machine from using the fax & fax option. The user needs to have the appropriate hardware and software in their end in order to be able to do this but it can be, by using the faxing the updates from one office to another machine that passing the fax to a fax or sending up several offices to fax made.

The OCL (optical character recognition) system has changed from the previous version. Within a new using Xerox's TextLine system, which is supposed to be more accurate in converting faxes back to text than before. It also has more error report, the options including NO Word

and Fax (Fax) Lotus 1.1.3 and Word Pro 1.1.

Content and editing tools is much better in this version. Features can be defined, manipulated and reported with viewing text but TWAIN scanner support is also included.

The cover page editor has been improved. You can now edit your fax in a single line instead of on the page with one line in each (includes a spell checker).

I am truly impressed with Windows Fax 1.1. It is a real improvement on an already excellent product. One thing I like is that about the package was that it seemed to level up and run a lot slower on my machine than the previous version. This is good sign of it, as it means your machine is overloaded. It is a good thing. When printing from a fax you can make your machine send to a virtual mail slot, taking ready time through a page to print while pages simply released through in a single page mode.

Windows Fax is good for people who have those offices and don't have the faxing on space for a fax machine (you can get a fax machine for as little as \$50 these days). It is also good in the office where you have a lot of faxing to do and don't want to stand in line to wait for your fax to be faxed a fax to many recipients. This integrated FAX and mail support makes this a very desirable product for faxing.

A fax machine and Windows Fax are a great way to connect you to your computer. It is a real nice feature, capabilities, has automatically to still allow it. Please fax me about fax machine.

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Sightings Steven M. Johnson



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Reel Magic

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Contact Maxxtron

Continued from page 68

Truckee has a similar look and feel as ACT! It's a feature-rich program that is new and ready. It also interfaces with ACT! Support Services that can provide up-dated information e-Mail and for links to software in the world. Features & Main gateway to WWW, IBM and C.C. features planned.

Truckee has a small program and a multi-task of tools for managing information and content. The company now provides a manual that instructs you on how to turn a program into a contact and then into a customer that will refer business to your organization. This was the most interesting part of the package that the company replaces school business applied into its new product, that will help you to build your own business.

Perhaps Truckee has tried to pack everything into the software that can be used in only one. Truckee is a powerful and worthy program that may offer some needed enhancements that work may not be able to find in other contact managers.

Truckee is only available in North America. Distribution into Canada is currently being organized. It might value added services according to Truckee US spokesman. Contact Maxxtron. Later this year the company hopes to make the product more widely available in computer mail stores. Pricing is set at the Canadian equivalent of US\$499 plus applicable taxes. —Ed

Maxxtron for Windows

Box 112
From: Maxxtron Systems Inc. 1041 Glenview
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Maxxtron tells you such as "The best way to track and close business." They further make the program that you can handle 10 percent above a client's budget. Including your work day.

If you have a problem, Maxxtron will automatically dial and then you call. In addition, a note box is opened so that you can begin to type in notes concerning your call.

Maxxtron comes with a full-featured word processor complete with full-text support, spell checker and thesaurus and a screen magnifier.

There are single modules of DDE that can connect programs in Windows. English, Auto Fax, Microsoft Word and WordPerfect. Maxxtron is also network ready call centers with a DDE Toolkit that explains how DDE works.

Maxxtron is giving away positive reviews, some of which have it edged up the best-selling and leader ACT! Both programs were originally released within months of each other and continue to duke it out for the best business program.

Maxxtron uses this method of focus. This method seems to work and display the information you require. The list feature gives Maxxtron a completely different look than Truckee as Act! and whether you like this set up will depend on your personal preferences. It is hard to be able to display one or all of the data different database windows in that interface.

"The key feature from an architectural standpoint is for the. We feel it gives a better overall presentation, less looking at your information" says Neil van der development

manager for Maxxtron. "Yes, it's part of the original development team says that "the goal was to develop a product that would satisfy all types of users by allowing multiple contacts and multiple addresses. We wanted to provide access to information at any point in time for tracking purposes with total productivity in a format that enables the user."

There are many things to like about Maxxtron, although some important features are lacking. For example, if Mail support is planned for future releases.

Some of the other features make up for

this lack, however. This toolset is easy to follow. There is also expense tracking and a personal journal which is easy to use as well as means to estimate expected leads and a mail merge feature.

If you choose Maxxtron, do not do so on the basis that it is a Canadian address company. Choose it because of its superior service. Many large organizations are adopting Maxxtron. For example, Maxxtron has the converted stock 37000 plus contact base to Maxxtron for use in their Canadian-wide Client Satisfaction Guaranteed program.

The suggested retail price is \$299.00 but the street price can be considerably lower. Maxxtron is guaranteed by one year from date of purchase. If for any reason you are not satisfied with the product they will return your full purchase price less a 10 percent handling fee (\$).

The author Janis de Peltre, Mississauga, Ont.

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what's new

Smileys All Around

Officity & Associates, best known for publishing books on how and the Internet, have introduced the whimsical and whimsical for the "New New Smiley Codes". "Smiley" are collections of keyboard symbols also attached to E-mail messages to indicate either an emotion or state of mind by the sender of the message. The codes was judged by David Sanders, who compiled 4500 symbols for the book "Smiley" published by Officity and Associates last year. A 40000 was included along with the book, sending people to send in the best new smiley not found in the book. The winner of the contest was Roy White of Delta Church, Va who took \$500 for the following entry:

>|<|
"What's too much TV?"

Remember how you wrote of the new edition of Ed Roft's "The Whole Internet: User's Guide and Catalog". Some of the new entries include:

>|<|
"Cat peeing down a drain" (poor choice)
Don McArthur

>|<|
"Apeiron"
Paul Carson

>|<|
"The Car in the Hat"
P. Murphy

>|<|
"Mr. Truismos"
Matthew J. Davis

>|<|
"Spontaneous Spill preparing to land"
Greg Boyd

Contact: Officity & Associates 1-800-882-9234

ClarisWorks for Power Macintosh

Claris Canada have launched ClarisWorks 2.1 for the Power Macintosh platform. ClarisWorks 2.1 is the top-selling integrated software package for the Macintosh that offers word processing, spreadsheets, database and communications capabilities in one product. The version of the program has been recompiled to run in the "native" PowerPC Macintosh format, taking full advantage of the superior speed offered by the PowerPC Macintosh.

Claris has also announced that ClarisWorks Macintosh Pro, ClarisDraw and ClarisPlan Pro will soon be available in native applications for the PowerPC Macintosh.

ClarisWorks 2.1 for the PowerPC will ship in the same box as ClarisWorks for the Macintosh. A "native" installer automatically determines whether or not the system it is being loaded on is PowerPC based or not, and then proceeds to install the version appropriate for that machine.

ClarisWorks 2.1 for the PowerPC Macintosh has a suggested retail price of \$449.

Contact: Claris Canada Inc. (416) 644-1611

Microsoft Plans Apps for Power Mac

Microsoft has announced plans to develop new versions of popular Microsoft applications for the PowerPC Macintosh. Microsoft will produce PowerPC versions of Microsoft Office, Microsoft Works and Symantec's Cybernaut as well as the work. While current Macintosh programs will work on the PowerPC Macintosh, the new applications are compiled specifically for the PowerPC Macintosh's 486 processor to take advantage of the speed offered by the new machine.

In the near future, Microsoft is launching "Power GuardScan", to upgrade programs based on PowerPC Macintosh customers. With this guarantee, people who buy the current version of the Macintosh package (word processors, or copies of Microsoft Word, Excel or PowerPoint) bought after April 4, 1991 can upgrade to the PowerPC version of the same programs for free when they become available.

Contact: Microsoft Canada Inc. 1-800-882-9234

Logitech Reduces Mouse Prices

Logitech has announced that it is dropping prices for the MouseMan line of computer mice for the PC. Logitech's strategy is to bring the suggested retail price down to the same level as their price.

The current version of MouseMan, which was priced for \$49 U.S., now retails for \$49.95 U.S. The MouseMan line has been reduced to \$79.95 U.S., and the MouseMan

Continuum now retails for \$109.95, down from \$149.95.

Contact: Logitech Inc. 1-800-255-7777

WinSync From Whitehill Tech.

Whitehill Technologies has launched a Windows-based file synchronization package called WinSync, which operates in the background to automatically make back-ups of data. With WinSync, users can choose what type of files they want backed-up and where they must then be backed-up to, ensuring that the most current versions of their files are always available for use.

It can be used in a peer-to-peer network, most automatically backing up files from a PC to a network. It can also be used by people who regularly share in a network (file servers) (local PCs and network printers). Files will automatically be copied to a floppy diskette, so people will always have

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Children's MM Software for Mac

Chico Canada Inc. announced the release of "Learning Animations," a new multi-media software package that allows children to create animated movies. As part of "Chico's Choice" "Learning Animations" is aimed at the "reluctant" market. Children will have fun using it to make action stories while parents and teachers will view it as a good educational tool. Introducing children to the world of computers while developing their creative skills, "Learning Animations" is equipped with 9 screens, 80 animated characters, and 40 sounds. For older children, "Learning Animations" offers a variety of drawing and paint tools. Adult level tools enable children to customize their own sounds, manipulate images and add visual effects. "Learning Animations" is recommended for ages 11-14 and will be available in June with a SRP of \$49.

Chico also introduced "Safety Facts", a new program for protection and utilities education package. As part of the "Chico's Choice" label, "Safety Facts" is easy to use and acts as an invaluable child's against injuries monitor and resource. Based on the topic "Who does not use a ladder," "Safety Facts" has 15 different features which include personal protection, safe handling and correct positioning. "Safety Facts" will be available in July for a SRP of \$49.

First Pentium Bravos

AST's first Pentium Bravo, the M1 P440 offers advanced processing power, processing the most complex mathematical calculations at two times the speed of the 386/387. In addition, the latest M1 P440 offers the high speed graphics technology necessary to run today's most advanced graphics programs such as CAD/CAM, 3-D graphics and multi-media training programs, says the company.

The top tier comes loaded with 640K RAM expandable to 128 MB on the system board and 256K secondary cache installed at 100 MHz. The mid tier has the high speed Pentium M1 P440 with the high speed graphics technology necessary to run today's most advanced graphics programs such as CAD/CAM, 3-D graphics and multi-media training programs, says the company.

AST's first Pentium Bravo, the M1 P440 offers advanced processing power, processing the most complex mathematical calculations at two times the speed of the 386/387. In addition, the latest M1 P440 offers the high speed graphics technology necessary to run today's most advanced graphics programs such as CAD/CAM, 3-D graphics and multi-media training programs, says the company.

than the 486/387. The lower LC line is perfect for "budget conscious small businesses" in big industries which require fast, powerful Windows based machines. Other members of the LC line include the 33.4/33.

Including the new 68030/68040 processors, and the LC 4/344. Featuring the 68030 (6.8-10.8MHz) processor, 488 Bytes of cache and 256 MB to 128 MB or 128MB hard drives, in addition, all come loaded with DOS 4.2

Windows 3.1 and AST Disk Utility. Prices start at \$1,199 for the LC 4/344 (base configuration) and \$1,299 for the LC 4/344 (base configuration) and \$1,299 for the LC 4/344 (base configuration) and \$1,299 for the LC 4/344 (base configuration).

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point that 300 to 400 mA is the threshold at which surge suppression begins. There are, with that type of suppressor, ranges of less than the threshold value of 200 to 400 mA are passed through directly to the user's equipment. Protective action begins above the clamping voltage, and ranges larger than the clamping voltage are limited by the surge suppressor so that the user equipment never sees more than the clamping voltage.

This design also has a characteristic response time called the "clamping response time." This means that the suppressor takes



time to react and may pass through spikes of very short duration without clamping.

action. This type of surge suppression is easily integrated in protectors against radio-frequency equipment damage and is better suited for use with unshielded appliances than for sensitive loads like computers. More than 90 percent of the surge suppressors sold today are of this type.

Some designs employ a "Gas Discharge Tube" clamping device in addition to other features. Gas Discharge Tubes are very slow devices capable of absorbing very large amounts of surge energy.

Shunt designs with filtering

The next level of sophistication combines

the shunt-type MOV clamping device with an EMR filter. The EMR filter is a well-known but frequently contacts jangle with the surge clamping device and may cause large momentary when excited with a surge test waveform.

Other shunt designs

Some shunt-type designs use a different type of clamping device than the commonly used MOV. Frequently a Silicon Avalanche Diode or TRANSOR diode is used in place of, or in supplement to, MOV. These designs provide a better response speed than a MOV-only design, and provide an equally better response to repetitive surge bursts. However, the energy rating of most of the largest of these devices is much lower than that of a modern MOV.

Some designs employ a "Gas Discharge Tube" clamping device in addition to other features. Gas Discharge Tubes are very slow devices capable of absorbing very large amounts of surge energy. They are typically used as a "last resort" clamping to AC surge protection in that the surge is the entire "blast" type devices are sensitive.

Series or isolating designs

The best type of surge suppressor uses a "series" or isolating design. In this case, the circuit elements are placed between the AC line and the user equipment. This circuit also means are designed so that they will pass the normal 60 Hz AC power, but have greatly increased electrical resistance at higher frequencies. In this fashion, such components act as a "break wall" to surge instead of more "directly". Available series type elements are not as ideal as desired, mainly due to their cost and their dissipation themselves, so they are combined with shunt-type clamping and filter elements to achieve superior surge protection performance. The series design is highly specialized, and requires a more clamping response time, making the use of shunt devices. Diodes are necessary. In addition, some shunt elements such as the use of Gas Discharge Tubes are not required. The typical series/shunt surge suppressor design is used in most power conditioning equipment called regulating transformers, and is used in advanced, high performance surge suppressors. □

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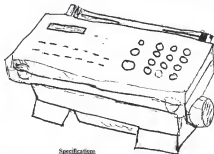
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